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ARCHITECTURAL SPECIFICATION
OF
NEW OFFICE BUILDING
FOR

STATINTL



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SUPPLEMENTARY GENERAL CONDITIONS.

P. 1

1.- SETTING OUT THE WORKS:

The contractor shall set out the works in accordance with drawings. All lines to be accurately worked in white chalk or otherwise to be satisfaction of the Architect, and during the progress of the work shall amend at his own cost any errors arising from the inaccurate setting out, unless the Architect shall decide to the contrary.

2.- FACILITIES:

The contractor is to afford all facilities to other tradesmen and provide where necessary all attendance including scaffolding, water, lighting & power.

3.- SHEDS & WORKSHOPS:

The contractor shall provide all necessary sheds and workshops for the use of the workmen and storage of materials and maintain the same and keep in order to the satisfaction of the Architect and remove them on completion of the works.

4.- CLEANING ON COMPLETION:

All roofs walls, floors, and pavingses, etc. to be scrubbed; all glass to be cleared out and the premises left clean, perfect, watertight and fit for habitation on completion.

EXCAVATION

1.- Added or Omitted Excavation:

(a) Should the bearings at levels indicated be found by the Architect to be insufficient, he may order the excavation carried to proper bearings. Such work shall be classed as additional work and the cost thereof shall be determined by the unit price given in the schedule of prices.

(b) Should proper bearings be found at a less depth than indicated, the Architect may order the omission of excavation. The Contractor shall allow a credit for work omitted on the unit price in the Contract.

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CONCRETOR

1.- Cement:

All cement are produced by [REDACTED] Not allowed to be used on the works that the cement had damaged or lumpy.

2.- Sand:

All sand used to be good, clean, sharp and to be free from clay, organic matter and other impurities.

P. 2

3.- Aggregate.

For R. C. roof slabs and beams is to be from a hard pebble crushed by machine, to sizes from 1/4" upwards to the maximum sizes of 3/4"
For R. C. footing and footing beam is to be used from small pebble, to sizes from 1/4" upwards to the maximum sizes of 1"
All of crushed stone or pebble shall be clean without any slate, shale or limestone.

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4.- Forms and Centering.

All forms and creating constructed of [REDACTED] or the [REDACTED] approved by the Architect, and shall be free from large and unsound knots, shakes and other defects which affect its value for the position in which it is to be used. Sound straight [REDACTED] poles may only be used for struts and supports.
All forms shall be substantial and unyielding and shall have a smooth surface in contact with the concrete and shall be free from adhering material or other defect which shall mar the surface.
All falsework and centering are to be neatly and accurately put together of uniform section through out with close water tight joints; are to be of sufficient scanting and so braced and tied as to be sufficiently rigid to carry the weight of concrete, men, plant and other loads which may be brought on to them during the progress of creating without a deflection of more than 1/4"

5.- Removal of Centering:

All centering shall be removed with greatest care, beam-sides, and soffits of slabs may be removed in sections after 12 days, soffits of cantilever slabs are to be removed 20 days after concreting.

6.- Steel:

The contractor supply all [REDACTED] steel bars are to be free from dirt, oil, paint, loose rust or scale. The bending must be completed before the steel is fixed in position. The steel is to be fixed in position exactly where shown on the drawings and the bars must securely wired together with S.W.G.#18 wire wherever necessary to prevent any displacement during concreting.

7.- Proportion & Mixing:

Reinforced Concrete to be in accordance with detail drawings supplied by the Architect & Engineers.

Concrete A Composed as follows shall be used for the concrete

Roof Slabs, Beams, Columns.

Crushed pebble to pass 3/4" mash	- - - - -	4 cu. ft.
Sand	- - - - -	2 cu. ft.
Cement	- - - - -	1 cu. ft.
(approx. 1: 2: 4 mixture)		

Concrete B Composed as follows shall be used for the concrete

Footing, & Footing Beams.

Pebble to pass 1" mash	- - - - -	4 cu. ft.
Sand	- - - - -	2 cu. ft.
Cement	- - - - -	1 cu. ft.

Concrete "C" Composed as follows, shall be used for plain concrete to

Ground Floor, Wall Footings and Drift Ways, etc.

Pebble to pass 1 1/2" mesh, sand and cement in proportion of 1 : 3 : 6

8.- Protection.

Immediately after the final finishing operations the surface of the concrete slab shall be covered with wet canvas or empty sacks. This covering shall be kept moist by spraying with water in such a manner that the surface of the concrete will not be damaged. The slab shall be kept moist until the concrete has taken its final set.

BRICKLAYER

1.- Bricks.

The bricks to be used on the job to be 1st. quality over-burnt bricks, the size not less than 2" x 4" x 9". Under-burnt bricks or bricks containing large fissures will not be allowed to be used.

2.- Brickwork:

All common brickwork is to be carried out in British bond, and joints thoroughly flushed up with cement mortar.

3.- Wetting Bricks:

All bricks are to be well wetted before being laid. The tops of the walls where left off to be well wetted before recommencing them as often as the Architects may deem necessary.

4.- Mortar for Brickwork:

All brickwork is to be built in mortar composed of:
1 part cement.
3 parts sand.

5.- Dampproof Course:

To all brick walls, a 2 ply asphalt damp proof course is to be laid at levels 6" from grade line.

6.- Hollow Blocks.

All hollow block to be used on the job is composed of:
1 part cement
3 parts sand
6 parts thinner

PLASTERER

1.- Internal Plaster:

All walls, partitions and ceilings to be plastered unless specified otherwise, and to have cornices all to detail drawings. Before plastering all brick and concrete wall surfaces will be sprayed with 2 coats as follows:

1st. coat 1/2" thick formed of:
1 part cement
3 parts sand

This to be scratched, and after 24 hours the 2nd coat will be followed.

2nd. coat is to be composed of 1 part cement
2 parts sand

Final coat - - - - - Fine lime putty.

2.- External Walls:

The external walls are to be faced with cement plaster as follows:

1st. coat 1/2" thick composed of 1 part cement
3 parts sand
2nd. coat - - - - - 1 part cement
2 parts sand

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CARPENTER & JOINER

1.- Timber:

All timber to be used of [REDACTED] except the wooden windows to STATINTL of 1st. quality of [REDACTED] all timbers must perfectly dry, thoroughly well-seasoned; free from sap, shakes, loose and deadknots, or other defects.

2.- Door Frames:

All the frames to be used for doors with 3" x 6" and for windows with 2 1/2" x 6" all frames are to be secured to brickwork with W.I. bolts faste to be built into the walls in cement mortar.

3.- Joints:

All joints shall be of the type specified or as is most appropriate in the circumstances. Loose joints shall be allowed wherever expansion or constraction is possible and so arranged that movement can take place without impairing the strength stability or appearance of the finished contruction.

4.- Architecves:

To be in [REDACTED] according to doors and windows 3/4" x 1 1/2" wrought and moulded to detail mitred at head and stoping on skirting block 1" from floor.

5.- Wooden Floor:

All the wooden floor to be used of 1" x 3" [REDACTED] board STATINTLg.

PAVIER & TILER

1.- Cement Finish Floors:

As shown on plans, to be composed of 1 part cement, 2 parts sand, 3/4" thick, and 6" high covered skirting except where otherwise speciied in the drawings.

2.- Terrazzo Floor:

A: Materials:- (a) common cement
(b) Division Strips: Strips for dividing terrazzo shall be #18 gauge of brass.

- (c) Sand: Sand shall be sharp, clean free from all deteriorous material.
- (d) Marble Granules: Kind and size of marble and color of, shall be in accord with samples to be submitted and approved by the Architect.

B: Workmanship:-

- (a) Clean concreted floor of all plaster, dirt, and wet thoroughly lay mixture of one part cement and three parts sand and bring same to a level $5/8$ " below finish floor level.
- (b) Install divider strips into the under bed while same is still semi-plastic.
- (c) Surfacing: Machine rub floors with coarse carborandum grit stone when they have set hard. Next apply on the surface a light grouting of pure cement, this grout to remain until final cleaning.
- (d) Base: 4" cement concrete base composed of;
 - 1 part cement
 - 3 parts sand
 - 6 parts pebble

HARDWARE

- 1.- Hinges: All hinges to be in brass. Entrance door to have three (3) hinges, other doors two hinges.
- 2.- Locks: All doors to have a brass lock complete with handles.
- 3.- Roller: All slide windows to be setting with a rolling ball.

GLAZIER

- 1.- Glass: All glass to be used for windows, 24 oz. with rolled glass. The 1" plate glass to used to entrance door.
- 2.- Putty: Best lined oil putty is to be used.

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PAINTER

- 1.- Generally: All paint to be first quality of [REDACTED] Samples and colours to be used will be made and the Architect's approval obtained from same before proceeding with the work.
- 2.- Ironwork: Unless otherwise specified all ironwork including all pipes, fitting, C.I. down pipes, and grillers, etc. is to be thoroughly, cleaned and free from all rust and painted one coat red lead before fixing.

3.- Woodwork:

All woodwork shall be sand-papered waxed and polished or stained and varnished to required colour. Inside windows and doors shall be painted 2 coats of stain and varnish. All wooden floor shall be finished with 4 coats of stain and polished, as follows:

- | | |
|---------|--------------------------------------|
| 1 coat | stain, colour selected by Architect. |
| 2 coats | gloss polish, light sand-papered. |
| 3 coats | gloss polish, light sand-papered. |
| 4 coats | gloss polish, and waxed. |

4.- Wall & Ceiling:

All interior walls and ceilings are to be twice lime washed.

5.- Cleaning on Completion:

All floor to be washed, all marks on paint to be sponged off, whole of the buildings left clean, perfect and watertight on completion to the satisfaction of the Architect.

DRAINLAYER

1.- Drains:

The drainage work is to be carried out by the contractor, all drains to be laid to the proper lines and levels.

Drains are to be constructed of brick in cement mortar, and they are to be laid on a bed of 1: 3: 6 cement concrete.

2.- Rainwater Pipes:

Rainwater pipes are to be of 2½" x 3" G. I. pipes.

SPECIFICATIONS

for

Plumbing and Electrical Installation.

General Remarks.

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1. Scope of work.

The work included under this contract shall comprise the furnishing of all materials and labor of every description hereinafter specified or shown on the drawings in connection with installation of the above mentioned systems for the new buildings at [REDACTED]

Anything mentioned in this specification and not shown on the drawings or vice versa, or anything requisite to make complete working systems has to be included by this Contractor.

2. Labor and Materials.

The entire installation shall be strictly in accordance with this specification. All workmanship and materials required for the performance of this work shall be of the very best quality of the character of the kind specified. Where materials are not specified they shall be of the best grade of their kind.

No deviations from drawings or specifications will be allowed unless upon written consent of the Owner and the Architects. The Contractor shall at his own expense to remove all materials or workmanship which has been condemned by the Owner and the Architects.

3. Co-operation.

The Contractor must do his work in close co-operation with other contractors of this particular installation and must not hinder the satisfactory progress of building construction. It must be approved by the Architects if any cutting is necessary. This Contractor shall reserve pipe chases and must be responsible for making good all work cut due to his tardiness in installing his pipe work.

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4. Local Ordinance.

All work under this specification shall fully comply with the regulations of the [REDACTED] It shall also conform with the best American Standard Practices. The Contractor should make the proce-

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dure of application of electricity to local power company and the charges collected by [REDACTED] will be paid by Owner.

5. Protection of Work.

The Contractor should take care of all his own materials during the construction period and should also take responsible for any loss on the completed construction before it will be examined.

6. Guarantee.

Upon completion of the complete installation the Contractor shall submit a written guarantee to the Owner, to guarantee his system for one year. Any defects due to improper workmanship or inferior materials shall be replaced at Contractor's expense.

PLUMBING WORK

1. Layout.

The water is supplied through main pipe which is connected from the meter to water reservoir. With water pump, the water in reservoir is raised to petrol drums and flow thence to the cold water systems.

2. Cold and Hot Water Line.

All pipes for cold and hot water supply should be genuine galvanized iron pipe with same fittings of U.S.A. or Japanese make. The size of pipes must be according to the drawings. Pipe fittings must be used wherever pipe connection or turning is needed, it is not allowed to bend pipe as needed to change the direction of pipe line. The hot water system should be arranged for recirculation so that there will be a constant supply of hot water at each fixture.

3. Waste Line.

Waste line shall be wrought iron pipe with same fittings. Each fixture must be trapped, when there are two or more outlets on a vertical waste pipe, the lower fixture should be protected against siphonage or air binding by venting. Cleanouts must be provided in case of waste line is clogged.

4. Soil Line.

All soil and vent pipes shall be heavy cast iron pipe of uniform thickness and cast iron fittings. They shall free from cracks, sand holes, and other defects. All joints must be fully calked with oakum and piglead. Vent pipe should

be extended above the roof and the top of which should be installed with wire ball.

5. Centrifugal Pump.

One (1) set of Centrifugal pump of 1 $\frac{1}{2}$ " suction pipe and 1" discharge pipe, rating 50 gallons per minute, at 30 feet typical delivery heads, of domestic manufacture to be fitted with single phase 1 H.P. 220 volts, 1750 r. p. m., semiclosed motor of Japanese make, which shall be directly connected with coupling to the pump and operated by wall mounting magnetic switch and float valve attached to the top of petrol drum. The whole set should be bolted to the level of concrete foundation.

6. Water Tank.

Twelve (12) pieces 53 gallon petrol drums to be sitted on the roof of new office building.

7. Water Reservoir.

1000 gallon capacity shall be constructed under the outdoor ground, 10" brick walls and cement finish on both sides with 1:3:6 concrete foundation. One manhole or 18" diameter shall be provided on the reinforced concrete cover.

8. Septic Tank.

The location and details in construction of septic tanks are shown as on drawing. All should be 10" thick pavement with brick and cement. All covers should be 1:2:4 reinforced concrete with cast iron manholes. The accessories for septic tank as pebbles, charcoal, and bleaching powder shall be provided by Contractor, and overflow shall be 6" diameter cement pipe connecting to the nearby sewer.

9. Manholes.

All manholes are of 24" in square and shall be built up with 1-brick thick pavement of brick and cement mortar and completed with reinforced concrete covers. The inner side with bottom of each manhole should be cement finish.

10. Sanitary Fixtures.

All fixtures are to be supplied by Owner and to be installed by Contractor.

11. Hydraulic Test.

A pressure test should be taken place after all water pipes are installed. It is required to reach this level that pressure will be 100 lbs. per square inch, and no leaking within one hour.

ELECTRICAL INSTALLATION

1. Installation in Transformer Room.

The additional installation is of five sets low-tension switch-board for new office building and attachment houses, details as follows:-

- (1) 75 KVA 200V. for air conditioner plugs in new building.
- (2) 33 KVA 200V. for air conditioner plugs, electric water heater, and gasoline pump in attachment houses.
- (3) 30 KVA 100V. for lighting in new office building.
- (4) 40 KVA 100V. for plugs in new office building.
- (5) 36 KVA 100V. for lighting and plugs in attachment houses.

The instrument and apparatus of switchboard such as oil circuit breaker, ammeter, disconnecting switches, signal lamps etc. are to be installed in the same design and workmanship.

The transformers are to be combined for simplicity into 2 units:-

- 1 set 200 KVA 200V. single phase three wire and
- 1 set 150 KVA 100V. " " two wire.

And they are to be installed by Contractor and to be supplied by Owner.

2. Installation of Interior Wiring.

(1) General Description.

The wiring system for new office building with attachment houses is comprising of lighting, lamp fixtures, electric appliance, signal bell, and power equipments. All wiring are to be installed with conduit in concealed type, with the exception of those lighting in ware houses. The capacity of loads and the size of main feeders for various circuits are prescribed as follows:-

- | | |
|--------------------------|--------------------------------|
| (a) New office building, | |
| Lighting | 110V. 300A. — 2-37/12 |
| Air conditioner | 220V. 360A. — 2-61/13, 1-19/11 |
| Plugs | 110V. 400A. — 2-61/12 |
| (b) attachment houses, | |
| (Warehouses etc.) | |
| Lighting & plugs | 110V. 360A. — 2-61/12 |
| Air conditioner etc. | 220V. 160A. — 2-19/11, 1-7/11 |

The above service feeders shall be British made, CMA insulated wires installed from each main distribution cabinet inside the building to five feet outside the wall.

(2) Main and submain distribution cabinets.

Distribution cabinets shall be installed according to the drawings

and wiring diagram for laying out branch circuits will be submitted later. All D.P. knife switches with bridge fuse shall be used, except over 40A. with cartridge fuse instead. Fuses for lighting circuits are to be 15A. MEM British made bridge fuse. The cabinets are made of steel sheet, enameled twice and equipped with hinged door thereupon, and inside to be installed with marble board.

(3) Electrical Conduit.

All Japanese made galvanized conduit of 3/32" thickness shall be used. The outside diameter of the conduits shall not be less than 3/4", and be smooth in surface of their inside wall. They shall be buried into the wall at the depth of 5/8" and well arranged to protect from the soaking of the water. The joint boxes which will be fastened by the nuts and bushings shall be installed at all jointed places of the conduits. The numbers of wire passing through a certain size of various conduits should be in compliance with TPC's regulations.

(4) Conductors.

All British made C.M.A. wire of 600 megohm and 250 volts grade shall be used except that the local made double layer insulated wire are used for the exposed wiring.

No wire of smaller size than 1/16 and 7/20 should be used on the lighting and electric appliance circuits respectively. Lighting and electric appliance should be installed on their own individual circuits separately. Not more than 3 lamps or 3 plugs should be installed on each circuit.

(5) Outlet Box.

Galvanized iron boxes shall be installed at where all lamps, tumbler switches, and plugs locate. Tumbler switches and knife switches for electric appliance shall be installed on the wall at four(4) feet height from the floor and the lighting plugs all on the base boards.

(6) Switches and Plugs.

Tumbler switches and plugs of Japanese made flush type, 250 volt, 5 ampere, each equipped with bakelite cover shall be used. Each electric appliance shall be provided with knife switch and to be installed in a flush type cabinet.

(7) Grounding.

All conduits should be installed as one body and whichever panel box of any branch circuit should be well grounded by means of #12 wire and earthing clamp.

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3. Installation of Aerial Wiring.

All reinforced concrete poles in standard type which will be approved by [REDACTED] Co. shall be used.

The poles should be submerged into the ground with crib brace, and the depth of submerged part of pole is 1.25 meters.

Poles installed at the corner position should be fastened with seven stranded galvanized wires of #8 S.W.G.

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Double cotton braided weather proof wire is used for aerial wiring. All wires are no soldering.

The fittings used on the pole are installed according to [REDACTED] Co.'s regulation. Porcelain insulators are Japanese make with best quality. Crossarm, steel strip, and bolts etc. are all selected in accordance with Power Co.'s standard and specifications.

The Contractor should not change the installation and wiring which all are shown on the drawings.